

Journal of Analytical Chemistry 1999 vol.54 N5, pages 446-448

Catalytic current of BrO_3^- and its use for the determination of chromium traces

Fitsev I., Toropova V., Romadanskaya E., Anisimova L.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The first observation of the catalytic wave of BrO_3^- at a dropping mercury electrode at the potential of the reduction of Cr(III) to Cr(II) in an ammonium buffer solution is reported. A mechanism is proposed for the catalytic process involving Cr(III) and Cr(II) ammonia complexes and their ion pairs with BrO_3^- and complicated by adsorption. It was shown that chromium traces can be determined by polarography under classical conditions and by flow-injection analysis with voltammetric detection. © 1999 MAEe Cyrillic signK "Hayka/Interperiodica".
